# Clean Sources: Six Metaphors a Minute?

Paul Tosey, Wendy Sullivan and Margaret Meyer 2013

It is frequently suggested, in relation to Clean Language, that people use six metaphors a minute. But do you know where that figure comes from, and what it is based upon? Recently we decided to check its source. While we did this partly out of curiosity, there is also an important consideration that the credibility of Clean Language could be undermined if `soundbites' like the six metaphors a minute figure can't be backed up. Clean Language will be better supported through knowing the origin of, and the validity of, key ideas like this.

The idea appears, for example, in an online article by James Lawley and Penny Tompkins (2000), and in James Geary's `I is an Other' (2012). Lawley and Tompkins' reference is to the person from whom they heard this figure (during a talk at Birkbeck College) rather than to a publication[i], and Geary's book doesn't attribute the figure explicitly to its origin. Turning to another reference in print that we were already aware of, Zaltman's `How Customers Think', gave us a lead. Zaltman says, `By one estimate, we use almost six metaphors per minute of spoken language' (Zaltman 2003 p.37), and an endnote refers to a paper by Raymond W. Gibbs Jr. called `Categorization and Metaphor Understanding' in an academic journal. `Psychological Review' (Gibbs, 1992). What did Gibbs actually say, and what was this figure based upon?[ii] The article is indeed about metaphor; however, we discovered that – contrary to the impression given by Zaltman – Gibbs makes no mention in this article of `six metaphors a minute', nor does he cite any other figure for the frequency of metaphor.

Gibbs clearly does write on the subject of metaphor, nevertheless, so we began to explore his other publications. Among these is a book called `The Poetics of Mind (Gibbs 1994). Thanks to Amazon's `look inside' facility [iii] we could search for the term `frequency', and found (on page 123) reference to research that `revealed that people used 1.80 novel and 4.08 frozen metaphors per minute of discourse'. Given that this totals 5.88 per minute, it seems a likely candidate for the origin of the idea that people use six metaphors per minute. However, Gibbs is not reporting his own research. He says that these figures are based on examining the frequency of metaphoric language `in transcripts of psychotherapeutic interviews, various essays, and the 1960 Kennedy-Nixon presidential debates' (Gibbs 1994 p.123) and gives the source of this work as a book by Pollio *et al* (1977).

Having next obtained Pollio *et al*'s book, which is about `figurative language'[iv], we found at last the original claim that speakers `use about an average of 1.80 novel and 4.08 frozen figures per minute' (Pollio *et al* 1977 p.8) – NB `frozen' refers to a frozen expression or dead metaphor that is important and frequently used in a culture, in other words one that is not unique to the individual who produces it. These figures, which correspond to those cited by Gibbs and subsequently by others, are produced at the beginning of the book in order to support the authors' claim that such language is `a rather ubiquitous aspect of human communication' (Pollio *et al* 1977 p.5). Pollio *et al* do not define
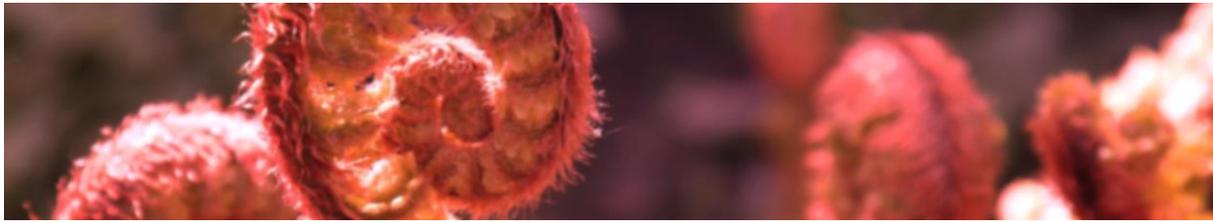
`figurative language', however their discussion of the functions of figurative language (on pages 9-18) primarily, and explicitly, refers to metaphor.

Where do Pollio *et al's* figures come from? The book declares that they are based on data from seven prior studies conducted by Pollio and/or colleagues that assessed the frequency of `figurative language' from the three sources mentioned by Gibbs (i.e. psychotherapeutic interviews; the televised Kennedy-Nixon debates in the 1960 US election; and compositions written by children, adolescents and adults). Of those seven studies, five are unpublished postgraduate dissertations from the 1970s. A sixth is a conference paper. Only one is from a published source, a journal called `Language and Speech'[iv]. Pollio *et al's* 1977 book describes all these prior studies in detail, so can be considered the best source available on this research. Since these studies comprise both spoken and written language, Pollio *et al* show the results as a rate per 100 words (Pollio *et al* 1977 p.6). Based on an estimate of the `usual rate of speaking' as `about 120 words per minute' (Pollio *et al* 1977 p.8), this is converted into the `average of 1.80 novel and 4.08 frozen figures per minute' (Pollio *et al* 1977 p.8).

As mentioned above, `six metaphors a minute' is also cited by Geary (`We utter about one metaphor for every ten to twenty-five words, or about six metaphors a minute', Geary 2012 p.5), but is not attributed directly to its source on this page. This statement also merits further attention because it seems possible that it is a `mash-up' of two separate sources, both of which are cited in Gibbs (1994). The figure of six metaphors a minute is based on Pollio *et al* 1977, but that of `one metaphor for every ten to twenty-five words' is from Graesser *et al* (1989), who analysed the use of metaphor in six TV debates and news programmes `broadcasted on the *Mac Neil/Lehrer News Hour'* (Graesser *et al* 1989 p.136) in April 1958. Graesser *et al* counted a total of 504 unique metaphors in the six debates (i.e. repetitions were not counted), which totalled 12,580 words; 12,580 divided by 504 is 24.96, hence an approximate rate of one unique metaphor every 25 words.

Some further issues do arise, which we will acknowledge but not pursue in this article. For example, there is the question of what Pollio *et al* and Graesser *et al* counted as metaphor (both authors do discuss this). Also, the source data for both studies is now dated, exclusively American, and much of it is media-generated. Although there do not appear to have been attempts to update the work of Pollio *et al* or Graesser *et al* specifically, one recent study that is concerned with examining patterns of metaphor usage, and which employs a systematic and thorough methodology, concludes that `on average one in every seven and a half words is related to metaphor' (Steen *et al* 2010, p.780).

In summary, the good news is that Clean Language practitioners can still cite the `six metaphors a minute' figure; what we have established is that its source is the research by Pollio *et al* (1977). It is also important to remember that Pollio *et al* present these numbers as estimates, albeit estimates that are derived from actual data rather than conjecture. The idea that we use one *unique* metaphor in every twenty-five words is from a different source, that is, Graesser *et al* (1989).

Acknowledgements

Biographies

Paul Tosey is a Senior Lecturer in the University of Surrey Business School. He researches into organisational learning and management learning, with special interest in the work of Gregory Bateson. A trained facilitator of Clean Language, he is now exploring applications of Clean Language to research interviewing. He was awarded a National Teaching Fellowship by the Higher Education Academy in 2007. His career experience over 30 years includes consultancy, coaching and line management. He has promoted a research-minded approach to NLP, and with Jane Mathison is author of `NLP: A Critical Appreciation for Managers and Developers' (Palgrave 2009).

Email: P.Tosey@surrey.ac.uk
Website: http://www2.surrey.ac.uk/sbs/people/paul_tosey/index.htm

Wendy Sullivan is a specialist international trainer of Clean Language. She is a certified trainer of NLP and an accredited psychotherapist and in addition to working as a trainer and running Clean Change Company Ltd, she facilitates teams, conducts research interviews, and works as a coach and psychotherapist. Her students span five continents and include corporate clients and private individuals who use these powerful approaches in personal development and to improve communication, relationships and business success. She and Judy Rees are the authors of Clean Language: Revealing Metaphors and Opening Minds, published by Crown House (2008).

Email: Wendy@cleanchange.co.uk
Website: http://www.cleanchange.co.uk/

Margaret Meyer is a business psychologist, international facilitator and verbal strategy consultant. A lifelong ambassador for words and their power to transform, she is a specialist in enrolling language and metaphor to transform communication, grow staff and customer engagement, and improve commercial performance. Margaret consults widely for brands and organisations, providing strategic insight and guidance on the language of customer loyalty and people performance. A fully qualified Clean Language facilitator, she has developed special applications of metaphor for brand culture, strategic planning, process transformation, relationship repair, and market research.

Email: margaret@linguabrand.com
Website: www.linguabrand.com
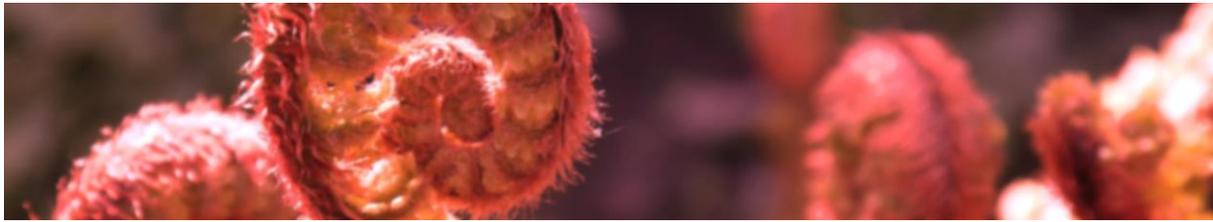
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[i] Personal communication, James Lawley, 18th January 2013.

[ii] Gibbs' paper is not generally accessible. We relied on university access to the journal to obtain this article.

[iii] http://www.amazon.co.uk/The-Poetics-Mind-Figurative-Understanding/dp/0521429927/ref=sr_1_2?ie=UTF8&qid=1358185992&sr=8-2#reader_0521429927

[iv] Howard Pollio is now an Emeritus Professor at the University of Tennessee, Knoxville, homepage http://psychology.utk.edu/people/pollio.html (accessed 4th February 2013).

[v] see http://gateway.proquest.com/openurl?url_ver=Z39.88-2004&res_dat=xri:pao:&rft_dat=xri:pao:article:4127-1975-018-03-000006:1